

## REDESCRIPTIONS OF THREE NEOTROPICAL COREID GENERA OF UNCERTAIN TRIBAL PLACEMENT (HETEROPTERA)<sup>1</sup>

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**ABSTRACT:** O'Shea and Schaefer (1978) have shown that two neotropical tribes of the Coreidae: Coreinae, Acanthocerini and Nematopodini, should be separated from the strictly Old World genera (Mictini sensu stricto). Three neotropical genera do not belong in any of these tribes, and cannot at present be placed in any coreine tribe. These genera, *Mammurius* Stål, *Curtius* Stål, and *Molchina* Amyot and Serville are described here, with tentative suggestions as to their relationships. The included species are listed, and those not seen are marked by an asterisk.

*Mammurius* Stål 1862a : 278

**TYPE SPECIES:** *Mammurius mopsus* Stål 1862b : 293.

Body small, robust, stout; head quadrate to somewhat triangular, post-ocular tubercles very small, antennifers small, widely separated, tylus projecting markedly anteriorly of antennifers, antennae long, slender, terete, segment 1 stouter than 2-4, 2 longer than 1, 3 a little longer than 1, 4 shorter than 3, robustly fusiform; pronotum very steeply declivent, callar region, collar not very distinct, lateral margins nodulose with anterior angles marked by large nodulose projection, humeral angles slightly produced laterally into short broad spine, posthumeral margins sinuate, somewhat nodulose, posterior margin smooth, more in male, armed distally with large spines; posterior tibiae flattened, ventral margin armed with row of small teeth in both sexes; posterior angles of abdominal segments unarmed, spiracles nearer lateral than anterior margins; paramere broader apically than distally, with short curved tip (Fig. 1); aedeagus with paired dorsal sclerites, large distodorsal sac, smaller medioventral sacs, vesica helical (Fig. 2).

**NOTES:** Stål (1862a) described *Mammurius* in part of his serial work "Hemiptera Mexicana," and described the only included species, *M. mopsus*, in the next part (Stål 1862b).

*Mammurius* is distinguished from nematopodine genera by its size (less than 15mm long). Its tylus extends considerably anteriorly, even compared with the outwardly similar genus, *Piezogaster* Amyot and Serville.

The genitalia are not very similar to those of the nematopodines. The

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dorsal sac of the conjunctiva and the helical vesica suggest that *Mammurius* may be related to the *Acanthocephala*-group (cf. Schaefer, 1965: Fig. 110).

Included species:

*cubanus* Barber and Bruner 1947: Chile

*mopsus* Stål 1862: Mexico, (Arizona)

### *Curtius* Stål 1870: 143

TYPE SPECIES: *Mictis*? *marginalis* Dallas 1852: 401; monobasic.

*Mictoides* Walker 1871: 38, syn. nov.

TYPE SPECIES: *Mictis*? *marginalis* Dallas 1852: 401; selected here.

**Redescription of the genus:** Body large, stout, broad, not depressed; head subquadrate, postocular tubercles forming smooth curve with eye, antennifers well developed, widely separated, tylus projecting further anteriorly than antennifers; antennae long, slender, terete, segment 1 slightly curved, more robust, 2 subequal in length to 1, 3 shorter than 2, 4 slightly longer than 2, fusiform; pronotum not very steeply declivent, callar region, collar distinctly marked, lateral margins relatively smooth, anterior angles rounded, humeral angles sharp, posterior, posthumeral margins smooth, posterior angles rounded; scutellum transversely striate; mesosternum lacking median longitudinal furrow, metathoracic scent gland opening placed relatively laterally; anterior femora with small spines distally on ventral surface in male, lacking in female, other femora armed at least with distoventral spines, posterior femora of male very markedly incrassate, with spines on ventral surface, dorsal surface smooth; posterior tibiae of female more or less terete, of male flattened, curved, slightly dilated ventrally with a large tooth at about midpoint, smaller spines distally; posterior angles of abdominal segments more or less square, unarmed, spiracles much nearer anterior than lateral margins; paramere with curved shaft (Fig. 3), distinct narrow curved tip (Fig. 4); conjunctiva of aedeagus with divided unsclerotized distodorsal sac, paired distolateral sacs (Fig. 5); vesica helical.

NOTES: Walker (1871) erected the genus *Mictoides* for *Mictis marginalis* and *M. triguttata*. But Mayr (1865) had already placed *triguttata* in *Sagotylus*, and Stål (1870) had already placed *marginalis* in *Curtius*. The two species are not congeneric, so *Mictoides* has no validity nomenclaturally or biologically. Since Walker (1871) did not select a type from the two included species, I am selecting *marginalis*, which automatically makes *Mictoides* a synonym of *Curtius*.

Stål (1870) pointed out a number of differences between *Curtius* and *Sagotylus*, which do have a similar habitus. Thus in *Curtius* (as opposed to *Sagotylus*): antennal segment 4 is longer than 3; the humeral angles are different; spines are lacking on the anterior margin of the pronotum; a lobe is lacking on the male metasternum above the coxa; there are ridges on the venters of the anterior abdominal segments, near the transverse sutures. In addition *Curtius* lacks a large tooth, present in *Sagotylus* on the ventral

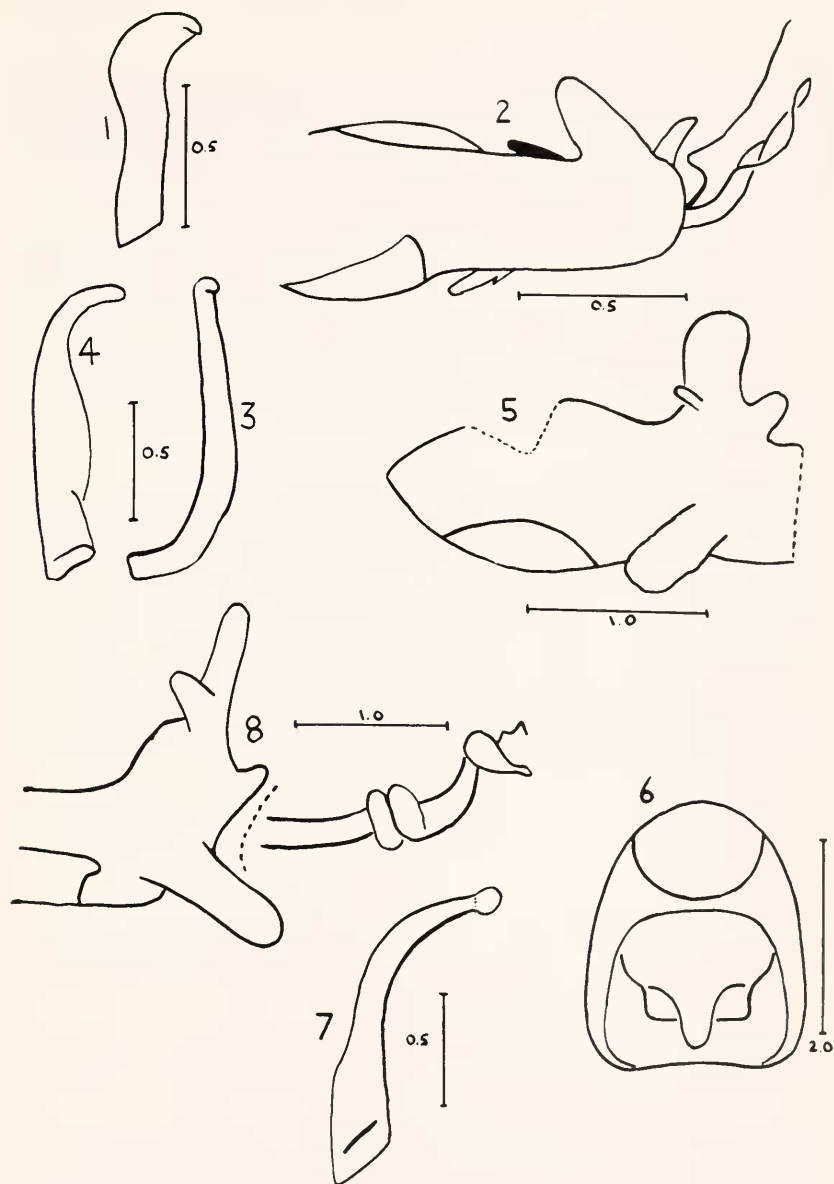


Fig. 1. *Mammurius mopsus* - paramere; Fig. 2. *Mammurius mopsus* - aedeagus; Fig. 3. *Curtius marginalis* - paramere; Fig. 4. *Curtius marginalis* - paramere; Fig. 5. *Curtius marginalis* - aedeagus; Fig. 6. *Molchina* sp. - male genital capsule; Fig. 7. *Molchina* sp. - paramere; Fig. 8. *Molchina* sp. - aedeagus.

margin of the posterior femora of the male.

The parameres of *Curtius* are strongly sclerotized and curved (Figs. 3, 4), whereas those of *sagotylus* are membranous and lack curved tips. *Curtius* has a totally unsclerotized conjunctiva (Fig. 5), whereas *Sagotylus* has paired medioventral sclerites as well as distodorsal and distoventral lobes.

The aedeagus and paramere of *Curtius* are neither nematopodine nor acanthocerine. Some doubts have been expressed in the past as to the placement of the genus. Much of the following applies also to *Molchina*, the genus I describe next, and will not be repeated there.

Stål (1870) placed *Curtius* and *Molchina* in a group, the Mictina. Later Stål (1873) mentioned these genera again, stating in a section on Spartoceraria, "Ad Physomeraria et Corearia appropinquant Spartoceraria americana .... Ad hanc divisionem (i.e., Physomeraria) *Spartocera* et affinia, nec non *Curtius* et *Molchina* pertinent."

Bergroth (1913) added *Curtius* and *Molchina* to the Spartoceridae Lethierry and Severin 1894 to form his Menenotaria, a course also followed by Blöte (1936). *Curtius* and *Molchina* do not seem to belong in the Spartocerini, among whose characters Schaefer (1965) included: femora unspined apically, posterior femora slender, paired ventral conjunctival appendages membranous.

Although the males have incrassate femora, the two genera do not belong in the Nematopodini. Their conjunctivas are entirely membranous and have distinct dorsal sacs. Nematopodine conjunctivas do not have dorsal sacs and usually have three pairs of sclerotized appendages. *Curtius* and *Molchina* also have helical vesicas, whereas nematopodine genera have curved vesicas.

I prefer to leave *Curtius* and *Molchina*, for the present, as genera of uncertain placement, until more American coreid genera can be examined.

Included species:

*marginalis* Dallas 1852; Colombia, Ecuador

= *affinis* Dallas 1852 (synonymized by Lethierry and Severin (1894)).

= *culta* (Distant) 1893 (synonymized by O'Shea (1974)).

*Molchina* Amyot and Serville 1843: 188-189

TYPE SPECIES: *Lygaeus compressicornis* Fabr. 1794: 138; monobasic.

*Euplatycoris* Walker 1871: 103-104 (synonymized by Bergroth, 1913).

TYPE SPECIES: *Euplatycoris bellicornis* Walker 1871: 104; monobasic.

Body large, broad, stout, relatively depressed posteriorly especially in males; head subquadrate, postocular tubercles forming smooth curve with eye, antennifers prominent, situated close together, projecting distinctly anteriorly of tylus; antennae long, slender, terete (except segment 3), segment 1 curved, relatively stouter, 2 shorter than 1, 3 subequal in length to 2, dilated on both sides for whole length, 4 curved, fusiform, very long usually about twice as long as 3; pronotum steeply declivent, callar region,

collar distinct, lateral margins nodulose, especially posterior part, anterior angles obtuse, more or less rounded, humeral angles produced laterally into short broad, or long narrow, sharp spine, posthumeral, posterior margins slightly nodulose, posterior angles not clearly marked; scutellum transversely striate; mesosternum without median longitudinal groove; metathoracic scent gland opening placed relatively laterally; posterior trochanter of males armed with small spine; all femora armed at least with distal spines on ventral surface, posterior femora incrassate, especially in male, ventral margin of male posterior femora armed with row of small spines, dorsal margin smooth; posterior tibiae of female more or less terete, of male flattened, curved, slightly dilated ventrally, armed with large tooth about  $2/3$  from proximal end, and smaller more distal teeth; abdominal segments 3, 4 of male armed medioventrally with large tubercles, posterior angles sometimes rounded, but usually forming small distinct spines, spiracles nearer anterior than lateral margins of segments; male genital capsule with posterior margin forming shelf, into which projects posteriorly a median tongue (Fig. 6); paramere with relatively short base, long curved tip widening apically (Fig. 7); conjunctiva of aedeagus with divided distodorsal lobe bearing paired lobes, paired distoventral lobes; vesica helical (Fig. 8).

NOTES: *Molchina* can be separated from other genera in the Nematopodini or Acanthocerini (i.e., those American genera whose males have incrassate femora, and are not in the Acanthocephalini) by the following combination of characters: humeral angles armed with distinct spines, third antennal segment dilated, and male abdominal segments 3 and 4 with median ventral tubercles. In addition, the paramere, aedeagus, and male genital capsule are all unlike those of the nematopodine genera.

The systematic placement of *Molchina* is discussed with the previous genus, *Curtius*.

Included species:

- compressicornis* (Fabr.) 1794; N. Brazil, Guianas
- granulata* Stål 1870; N. Brazil
- = *bellicornis* (Walker) 1871 (synonymized by Bergroth, 1913)
- hopei* (Perty) 1833; N. Brazil, Peru
- \**linnei* Stål 1859; N. Brazil
- \**molitor* Breddin 1898; Bolivia
- \**obtusidens* Blöte 1936; Panama

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